Swine Brucellosis Investigation in California
Information for Swine Owners

California Department of Food and Agriculture

January 2004

Status: California was Certified Free (Stage 3) in the National Swine Brucellosis Eradication Program in 1980. Only four states that are not classified as Free - TX, AR, FL, and LA.

California Case Investigation Timeline:

- 11/4/03 - Blood samples from 3 boars killed in Stanislaus County indicated brucellosis infection.
- 11/18/03 - Blood samples from 2 sows killed in Fresno County indicated brucellosis infection.
- 12/3/03 - Both sets of animals traced to a small swine herd in Tulare County. Herd quarantined.
- 12/9/03 - Blood sample herd - results indicated an infected herd.
- 12/10/03 – Develop herd plan - necropsy the sows and boars; incinerate their carcasses; market feeder pigs directly to local slaughter markets after informing USDA; start traceback.
- 12/15/03 - Funds to depopulate the sows and boars approved by USDA.
- 12/18/03 – Complete depopulation of sows and boars. Necropsy revealed lesions compatible with brucellosis. Carcasses incinerated.
- 12/18/03 - State public health and Tulare, Fresno and Stanislaus County health officials notified.
- 1/14/04 – Notice requiring a negative official brucellosis test within 30 days on all breeding swine destined for exhibition in California.
- 1/28/04 – Tests confirmed infected herd.

Future Plans:

- Trace all swine moving into and out of the herd over the last 3 years.
- Test all herds from which sows and boars were purchased into the infected herd.
- Restrict exposed animals - quarantine and move them under permit to slaughter.

Impact of Case on California:

If a second infected herd is detected, California may lose its swine brucellosis Free status, requiring a negative official brucellosis test before breeding swine leave the state. The producer must pay for the testing and the costs of delayed movement.

Swine Brucellosis Information:

Cause: Bacteria *Brucella suis.*

Signs: Abortions, weak piglets, infertility, lack of sexual drive and orchitis in boars, lameness, arthritis, abscesses, and posterior paralysis. Some infected pigs show no signs.

Organs Affected: Male and female reproductive tract, mammary glands, bones, joints and soft tissues. The organism may be in the blood stream for prolonged periods.

Spread: Highly contagious sexually transmitted disease. Usually introduced into a herd in an infected animal. Disease spreads in semen during breeding, and by ingesting, inhaling, or eye contact with bacteria in milk, reproductive fluids, placenta, aborted fetuses, and urine.

Other Animals Affected: Feral swine may be a disease reservoir. Cattle, humans, dogs, other domestic animals and rodents may be affected.

Incubation: Variable, average 14-21 days, range 3-120 days.

Surveillance: Blood samples are collected from all mature swine at slaughter. Surveillance is enhanced by movement, show, and diagnostic tests.

Disease Confirmation: Tissue culture. Blood testing is very effective in identifying infected herds but the tests are not precise on individual animals.

Case Options: Depopulation, with owner indemnification, is the best way to control swine brucellosis. Test and slaughter plans may be used but are often ineffective because infected pigs may show no signs, may test negative, and are a threat to human health. There is no approved vaccine.

Human Health: Swine brucellosis is a significant human health hazard, causing serious illness known as “undulant fever”. Disease spreads to people from handling newborn piglets, aborted fetuses, fetal membranes and during slaughtering or processing infected pigs. Infection occurs via the respiratory tract, oral route, conjunctivae, or through minor skin abrasions. Disease does not spread person to person. Contact your medical provider or local health department for more information.

For more information call CDFA Animal Health Branch at (916) 654-1447 or visit our web page:
http://www.cdfa.ca.gov/ahfss/ah/cooperative_programs.htm